

REMARKS

Claims 1-10 are pending in the above-identified application. Support for new claims 6-10 is found in the original claims, as well as at pages 2-4 of the present specification.

Issues Under 35 U.S.C. §102(b)

Claims 1-5 have been rejected under 35 U.S.C. §102(b) as being anticipated and unpatentable over Wu '358 (USP 5,908,358). This rejection is traversed for the following reasons.

Present Invention and Its Advantages

The present invention is directed to a golf ball with a cover formed from a cured product of a thermosetting resin composition wherein the stiffness modulus (MPa) and Shore D hardness properties satisfy the relationships recited in claim 1. Significantly, the inventors of the present application have discovered a relationship between the stiffness modulus and hardness properties of the golf ball cover. Evidence of the advantageous properties exhibited by golf balls of the present invention is evidenced by the comparative tests results shown in Tables 2-4 at pages 22-26 of the present specification. In this regard, note that Examples 1-7 (present invention) in Table 2 all provide for excellent ("E") or at least

good ("G") controllability and shot feeling properties. In contrast, the various Comparative Examples 8-18 exhibit predominantly poor controllability and shot feeling properties. Note especially Comparative Examples 11 (308 MPa stiffness; 59 Shore D hardness; and A/B ratio of 5.2) and 15 (90 MPa stiffness; 52 Shore D hardness; and A/B ratio of 1.7) which both exhibit only poor ("P") or fair ("F") controllability and shot feeling properties. Comparative Examples 11 and 15 have acceptable golf ball cover stiffness and hardness properties according to Wu '358 discussed below.

Distinctions between Present Invention and Wu '358

Wu '358 discloses a golf ball having a urethane cover which is formed using an epoxy curing agent. The cover may be formed from a thermosetting or thermoplastic polyurethane composition and the Young's modulus of the cover is in the range of 5,000-100,000 psi (converting to 34.5-689.5 MPa). This is described at column 2, lines 35-45 and column 5, lines 8-22. Wu '358 further discloses at the bottom of column 6 to the top of column 7 that the golf ball cover is formed to have a Shore D hardness at the end of the intermediate curing step of 10-30. Wu '358 discloses at Table 1

examples of the invention wherein the cover has a Shore D hardness of 51 and 58.

Wu '358 fails to disclose the specific relationship between the stiffness and hardness properties of the golf ball cover as in the present invention, such that the ranges for "A" and "B" are satisfied as recited in claim 1 of the present application. In fact, as noted above, Comparative Examples 11 and 15 in Table 3 at page 24 of the present specification employ acceptable stiffness and hardness properties based on the ranges and examples described in Wu '358. Consequently, it is clear that Wu '358 fails to provide any reasonable suggestion towards obtaining the present invention such that a person skilled in the art would have to engage in experimentation without sufficient guidance. Wu '358 fails to recognize the advantages associated with the golf ball of the present invention with regard to advantageously improved controllability and shot feeling properties. Therefore, significant patentable distinctions exist between the present invention and Wu '358.

In addition to the above, it is submitted that Wu '358 employs a specific type of "Young's modulus" as described at column 5, lines 19-21 which is based on a specific ASTM method, i.e. "D638-84 wherein the chord technique is used." It is not evident that this

type of stiffness measurement is equivalent to the "stiffness modulus" measurements used in the present invention. In this regard, it is noted that "stiffness modulus" is generally measured by employing a cantilever, whereas "Young's modulus" is generally measured by employing a simple beam. Consequently, it is not clear that the two modulus properties for the present application and for Wu '358 can be accurately converted as assumed above.

Conclusion

It is submitted for the reasons stated above that the present claims define patentable subject matter such that this application should now be placed condition for allowance. It is also requested that the newly added method claims be re-joined with the presently considered product claims when the present application is placed into condition for allowance.

If any questions arise regarding the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

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required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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